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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,517	07/27/2006	Kentaro Nakahara	NEC 04P314	2231

27667 7590 04/26/2012
HAYES SOLOWAY P.C.
4640 E. Skyline Drive
TUCSON, AZ 85718

EXAMINER

HAN, KWANG S

ART UNIT	PAPER NUMBER
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1727

NOTIFICATION DATE	DELIVERY MODE
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04/26/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

admin@hayes-soloway.com
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Office Action Summary	Application No. 10/597,517	Applicant(s) NAKAHARA ET AL.	
	Examiner Kwang Han	Art Unit 1727	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2012.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-8 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-8 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

**ELECTRIC POWER STORAGE DEVICE EMPLOYING A POSITIVE ELECTRODE
CONTAINING NITROXYL POLYMER**

Examiner: K. Han SN: 10/597,517 Art Unit: 1727 April 23, 2012

Detailed Action

1. The Applicant's amendment filed on January 27, 2012 and February 13, 2012 was received. Claims 1-6 were amended. Claims 7 and 8 were added.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The claim rejections under 35 U.S.C. 112, second paragraph, on claims 1-5 are withdrawn, because the claims have been amended.

Claim Rejections - 35 USC § 103

4. The claim rejection under 35 U.S.C. 103(a) as unpatentable over Nakahara et al. in view of Nanjundiah et al. on claims 1-6 is withdrawn, because claims 1-6 has been amended.

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. (JP 2002-304996, machine translation) in view of Inoue et al. (US 6090506).

Regarding claims 1 and 6, Nakahara is directed towards an electrochemical cell (chemical battery) [0008-0014] comprising a cathode with a nitroxyl polymer which has

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a nitroxyl cation partial structure and a nitroxyl radical partial structure [Abstract, 0008-0009]. Nakahara discloses the collector to be comprised of various materials including a carbon raw material and aluminum plate [0046] but is silent towards the carbon layer being formed and integrated on aluminum.

Inoue teaches a current collector for a battery composed of materials which undergo no chemical change within the battery including aluminum with carbon treated on the surface (conductive auxiliary) (13:32-39). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a current collector for a battery comprised of aluminum with carbon because Inoue teaches these materials undergo no chemical change within the battery and is electrically conductive.

Regarding claims 2 and 3, Nakahara disclose the whole active material to consist of a preferable range of 50% or more [0035] and to further include other constituents such as conductive polymers, carbon materials, etc. (electro-conductivity imparting agent) [0038].

Regarding claim 4, Nakahara discloses the cyclic nitroxyl structure [0010].

Regarding claim 5, Nakahara discloses the nitroxyl polymer compound having a side chain containing a residue which removes at least one hydrogen atom bonded to an element forming at least one cyclic nitroxyl structure [0017-0022].

Regarding claim 7, Nakahara discloses the cell to be a coin type cell (Drawing 1).

Regarding claim 8, Nakahara discloses the cathode in contact with the current collector [0043] (Drawing 1).

Response to Arguments

1. Applicant's arguments filed January 27, 2012 have been fully considered but they are not persuasive.

Applicant's principal arguments are:

(a) the object of the present invention is to reduce Schottky-type internal resistance that is generated between a metal collector and a nitroxyl polymer and the potential barrier between an organic compound and a metal collector is reduced which is not taught by the prior art.

In response to Applicant's arguments, please consider the following comments:

(a) the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact/Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang Han whose telephone number is (571) 270-5264. The examiner can normally be reached on Monday through Friday 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barbara Gilliam can be reached on (571) 272-1330. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./
Examiner, Art Unit 1727

/Barbara L. Gilliam/
Supervisory Patent Examiner, Art Unit 1727